BBA

Bioenergetics
(including Reviews on Bioenergetics)
Vol. 1098, 1992

Cumulative Contents

Information for Contributors vii

Regular Papers

Primary processes in isolated photosynthetic bacterial reaction centres from *Chloroflexus aurantiacus* studied by picosecond fluorescence spectroscopy
M.G. Müller, K. Griebenow and A.R. Holzwarth (Germany) 1

Molecular cloning of genes encoding major two subunits of a eubacterial V-type ATPase from *Thermus thermophilus*
S. Tsutsumi, K. Denda, K. Yokoyama, T. Oshima, T. Date and M. Yoshida (Japan) 13

H^+-transhydrogenase in chromatophores from *Rhodobacter capsulatus* after periods of continuous illumination and short flash excitation
T. Palmer, N.P.J. Cotton and J.B. Jackson (U.K.) 21

Spontaneous ultraweak light emission from respiring spinach leaf mitochondria
È. Hideg, M. Kobayashi and H. Inaba (Japan) 27

Kinetic characteristics of formate/formic acid binding at the plastoquinone reductase site in spinach thylakoids
C. Xu, S. Taoka, A.R. Crofts and Govindjee (U.S.A.) 32

Protection of cellular and mitochondrial functions against anoxic damage by fructose in perfused liver
H. Okabe, K. Kurosawa, N. Hatanaka, J.-i. Yoshitake and K. Tagawa (Japan) 41

Electric field effect on chlorophyll fluorescence and its relation to Photosystem II charge separation reactions studied by a salt-jump technique
H. Dau and K. Sauer (U.S.A.) 49

On the thyroid hormone-induced increase in respiratory capacity of isolated rat hepatocytes
R.B. Gregory and M.N. Berry (Australia) 61

Kinetics of excitation energy transfer in the cyanobacterial phycobilisome-Photosystem II complex
C.W. Mullineaux and A.R. Holzwarth (Germany) 68

Characterisation of proton fluxes across the cytoplasmic membrane of the yeast *Saccharomyces cerevisiae*
R.S. Haworth, B.D. Lemire, D. Crandall, E.J. Cragoe Jr. and L. Fliegel (Canada, U.S.A.) 79

Localization of cytochrome *f* in the thylakoid membrane: evidence for multiple domains
P.-Å. Albertsson, E. Andreasson, P. Svensson and S.-G. Yu (Sweden) 90

Adaptation of *Bacillus FTU* and *Escherichia coli* to alkaline conditions: the Na^+-motive respiration
A.V. Avetisyan, P.A. Dibrov, A.L. Semeykina, V.P. Skulachev and M.V. Sokolov (U.S.S.R.) 95

Fluorescence lifetime studies of cyanobacterial Photosystem II mutants
E. Bittersmann and W. Vermaas (U.S.A.) 105

Properties of photosynthetic reaction centers isolated from chromatophores of *Chromatium minutissimum*
V.P. Shinkarev, M.I. Verkhovsky, J. Sabo, N.I. Zakharova and A.A. Kononenko (U.S.S.R.) 117

Erratum 127

Preface *vii*

Regular Papers

The structure of ATP synthase from chloroplasts. Conformational changes of CF_1 studied by electron microscopy
E.J. Boekema and B. Böttcher (The Netherlands) 131

Effect of Ca^{2+} ions on the slow active/inactive transition of the mitochondrial NADH-ubiquinone reductase
A.B. Kotlyar, V.D. Sled and A.D. Vinogradov (U.S.S.R.) 144

Kinetics of electron transfer from the primary to the secondary quinone in *Rhodopseudomonas viridis*
P. Mathis, I. Sinning and H. Michel (France, Germany) 151

Spectroscopic properties of LHC-II, the main light-harvesting chlorophyll *a/b* protein complex from chloroplast membranes
P.W. Hemelrijk, S.L.S. Kwa, R. Van Grondelle and J.P. Dekker (Netherlands) 159

The effect of lysophosphatidylcholine on the activity of various mitochondrial enzymes
M. Kalous, H. Rauchová and Z. Drahota (Czechoslovakia) 167

Improved derivation of phosphate potentials at different temperatures
K. Krab and J. Van Wezel (The Netherlands) 172

The effect of ascorbate free radical on the energy state of the plasma membrane of onion (*Allium cepa L.*) root cells: alteration of K^+ efflux by ascorbate?
J.A. González-Reyes, O. Döring, P. Navas, G. Obst and M. Böttger (Spain, Germany) 177

Cytochrome oxidase in *Anacystis nidulans*: stoichiometries and possible functions in the cytoplasmic and thylakoid membranes
P. Nicholls, C. Obinger, H. Niederhauser and G.A. Peschek (Austria) 184

Identification of type 1 and type 2 light-harvesting chlorophyll *a/b*-binding proteins using monospecific antibodies
M. Sigrist and L.A. Staehelin (U.S.A.) 191

Purification and characterization of *Rhodocyclus gelatinosus* photochemical reaction center
I. Agalidis and F. Reiss-Husson (France) 201

Detection of flash-induced quinone radicals in spinach chloroplasts
R.J. Pace, A.B. Hope and P. Smith (Australia) 209

Characterization of a mitochondrial inorganic pyrophosphatase in *Saccharomyces cerevisiae*
M. Lundin, S.W. Deopujari, L. Lichko, L. Pereira da Silva and H. Baltscheffsky (Sweden) 217

The F_1-ATPase from turnip (*Brassica napus L.*) mitochondria: purification, subunit composition and properties
J.F. O'Rourke and S.B. Wilson (U.K.) 224

The contribution of adenine nucleotide loss to ischemia-induced impairment of rat kidney cortex mitochondria
W. Henke and E. Nickel (Germany) 233

Some effects of different extracellular proteins on oxygen consumption and heat production in isolated rat hepatocytes
D. Clark, M. Brinkman, S.D. Neville, T. Grivell and J. Phillips (Australia) 240

Photoinactivation of Photosystem II as studied with site-directed D2 mutants of the cyanobacterium *Synechocystis* sp. PCC 6803
F. Van der Bolt and W. Vermaas (U.S.A.) 247

Regulation of mitochondrial respiration by controlling the permeability of the outer membrane through the mitochondrial channel, VDAC
M.Y. Liu and M. Colombini (U.S.A.) 255

Photoacoustic signal generation in leaves: are O_2-consuming processes involved?
M. Charland, K. Veeranjaneyulu, D. Charlebois and R.M. Leblanc (Canada) 261

Rapid Reports

Low-temperature EPR on single crystals of Photosystem I: study of the iron-sulfur center F_A
K. Brettel, I. Sieckmann, P. Fromme, A. Van der Est and D. Stehlik (Germany) 266

Molecular structure and optical properties of carotenoids for the in vivo energy transfer function in the algal photosynthetic pigment system
M. Mimuro, U. Nagashima, S.-i. Takaichi, Y. Nishimura, I. Yamazaki and T. Katoh (Japan) 271

Review

Protein phosphorylation in regulation of photosynthesis
J.F. Allen (Norway) 275

Regular Papers

Charge anisotropy across biological membranes: evidence and implications
V. Sitaramam, S.A. Paranjpe and A.D. Gangal (India) 336

Reduction of Cu_A induces a conformational change in cytochrome *c* oxidase from *Paracoccus denitrificans*
T. Haltia (Finland) 343

Inhibition of the cation-induced reversible changes in excitation energy distribution in thylakoids of BASF 13.338-grown plants
S. Bose, P. Vijayan, R. Santhanam and M.K. Kandasamy (India) 351

High rates of Photosystem II electron flow occur in maize thylakoids when the high-affinity binding site for bicarbonate is empty of all monovalent anions or has bicarbonate bound
P.A. Jursinic and A. Stemler (U.S.A.) 359

Cumulative Contents, Vol. 1098 369

Author Index 371